#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133

(707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

### WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-015615 Address: 333 Burma Road **Date Inspected:** 14-Jul-2010

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes No Li Yang **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component: OBG** Segment

**Summary of Items Observed:** 

On this date Caltrans OSM Quality Assurance (QA) Inspector Mr. M. Manikandan was present during the time noted above for observations relative to the work being performed.

#### OBG # TRIAL ASSEMBLY YARD

This QA Inspector along with Mr. Manjunath S Math photographed and documented at various locations on lift 7W prior to the shipment of (Voyage 4) en-route to Yerba Buena Island, California, USA. The following locations are where the photographs were taken and the photographs are available for review upon request.

Lift 7 West (Panel Point 47.5 thru Panel point 49) the following sequential members were photographed and documented:

- 1. Truss post Crossbeam side of segment 7AW PP 47.5 and PP 48.5.
- 2. Corner Assembly Crossbeam side of segment 7AW PP 48 and PP 49.
- 3. Longitudinal Diaphragm Crossbeam side of segment 7AW PP 48 and PP 49.
- 4. Chevron Diagonal members (upper and lower) Crossbeam side of segment 7AW PP 48 and PP 49.
- 5. Sea fasteners- 7AW PP 48.
- 6. Longitudinal Diaphragm Counter weight side of segment 7AW PP 48 and PP 49.
- 7. Corner Assembly Counter weight side of segment 7AW PP 48 and PP 49.
- 8. Truss post Counter weight side of segment 7AW PP 47.5 and PP 48.5.

#### OBG # TRIAL ASSEMBLY YARD

#### WELDING INSPECTION REPORT

(Continued Page 2 of 3)

This QA Inspector along with QA inspector Mr. Manjunath S Math performed the dimensional survey inspection to verify the root gap and offset on the transverse splice weld of segment 9DE and segment 9EE. The measurements were recorded on a separate sheet and forwarded to team leader for review and disposition. The segment and panel point designations were as follows:

Segment 9DE to Segment 9EE – PP 82 to PP 83.

For additional information please reference the pictures below:

This QA Inspector randomly observed the following work in progress:

OBG # TRIAL ASSEMBLY YARD (9CE)

The QA Inspector observed the welding operation per the SMAW process on weld joint no. 005 in the (4G) overhead position on corner assembly piece mark number CA063. The location was the complete joint penetration groove weld joining the edge panel and the side panel of segment 9CE. The welder ID was 037932. The ZPMC CWI was identified as Li Yang. The welding variables recorded by QC appeared to comply with the WPS-B-P-2214-Tc-U4b-FCM-1.

OBG # TRIAL ASSEMBLY YARD (9DE-9EE)

The QA Inspector observed the welding operation per the FCAW process on weld joint no. 022 in the (3G) vertical position on bottom panel WT stiffener piece mark number BP181-001. The location was the complete joint penetration groove weld joining the WT stiffeners of segment 9DE and 9EE. The welder ID was 067942. The ZPMC CWI was identified as Li Yang. The welding variables recorded by QC appeared to comply with the WPS-B-T-2233T.

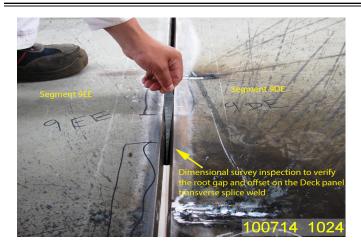
OBG # TRIAL ASSEMBLY YARD (9DE-9EE)

The QA Inspector observed the welding operation per the FCAW process on weld joint no. 020 in the (3G) vertical position on bottom panel WT stiffener piece mark number BP073-001. The location was the complete joint penetration groove weld joining the WT stiffeners of segment 9DE and 9EE. The welder ID was 067947. The ZPMC CWI was identified as Li Yang. The welding variables recorded by QC appeared to comply with the WPS-B-T-2233T.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

# WELDING INSPECTION REPORT

(Continued Page 3 of 3)



## **Summary of Conversations:**

No relevant conversations were reported on this date.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

<b>Inspected By:</b>	Manikandan, Murugan	Quality Assurance Inspector
Reviewed By:	Peterson,Art	QA Reviewer